IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.:	10/690,778	**Conf. No.:**	1597
Filing Date:	10/22/2003	**Art Unit:**	3621
Appellants:	Abe et al.	**Examiner:**	Augustin, Evens J.
Title:	CONFIDENTIAL FRAUD DETECTION SYSTEM AND METHOD	**Docket No.:**	CHA920030025US1 (IBMC-0084)

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REPLY BRIEF

This is a Reply Brief to the Examiner Answer dated May 25, 2011, rejecting claims 1-3 and 5-11.

ARGUMENTS

1. Claims 1-3 and 5-11 are not obvious over Ziegler in view of Douceur and further in view of Tochikubo.

Ziegler does not show the element "a plurality of surveillance algorithms stored in an encrypted database wherein the plurality of surveillance algorithms make a determination regarding a probability that inputted transactions are fraudulent."

The Examiner finds this argument unpersuasive and cites paragraph [0182] of Ziegler and alleges that in a deterministic state, the registered code has not been altered and the system has not been altered for the purpose of fraud (Examiner's Answer, page 8, paragraph 4). There is nothing in paragraph [0182] that mentions determining "a probability that inputted transactions are fraudulent." Further, paragraphs [0144-145] of Ziegler are concerned with whether executable code is trusted and will operate deterministically and that such code is registered to the database and processing system. The Examiner alleges this determines the legitimacy of the customer (Examiner's Answer, page 8, paragraph 5). Again, there is nothing in Ziegler that concerns determining "a probability that inputted transactions are fraudulent." Finally, the Examiner alleges that Ziegler determines and detects transaction fraud in real time citing Ziegler at paragraph [0110] (Examiner's Answer, page 8, paragraph 6). The Examiner further states that "Through the process of fraud determination and detection, a probably (sic) of fraud necessarily has to be part of the process." Appellants assert this conclusion by the Examiner is not supported by the cited teachings of Ziegleras paragraph [110] of Ziegler is to "insure that all transactions performed over open networks on behalf of said merchant can be verified and authenticated in

real time" and the transaction is either approved or denied and such resolution is delivered to the merchant to eliminate transaction fraud originating from *non-participating merchants*. This argument by the Examiner does not show "a plurality of surveillance algorithms stored in an encrypted database wherein the plurality of surveillance algorithms make a determination regarding a probability that inputted transactions are fraudulent" as required by the claims of Appellants' invention. In summary, Ziegler is concerned with making the system secure to those registered but never teaches or suggests "a plurality of surveillance algorithms…wherein the plurality of surveillance algorithms make a determination regarding a probability that inputted transactions are fraudulent."

The Examiner admits that Ziegler does not show "a selection program for selecting at each of a sequence of random times a different surveillance algorithm to be used by the analysis system" (Examiner's Answer, page 5, paragraph 3 g.) The Examiner cites Douceur as showing random selection with a predefined correlation coefficient and calculation of the coefficient from already generated random values (Examiner's Answer, page 6, paragraph 4). The Examiner concludes it would be obvious to have modified the teachings of Ziegler to add calculations and selection method of Douceur so that a comparison of the predefined rho and the calculated rho would trigger an alert as taught by Ziegler if the difference exceeded a threshold (Examiner's Answer, page 6, paragraph 4). Appellants assert the combination of Ziegler and Douceur could not produce the instant invention. As detailed above, Ziegler does not teach "a plurality of surveillance algorithms stored in an encrypted database wherein the plurality of surveillance algorithms make a determination regarding a probability that inputted transactions are fraudulent." The *algorithm* of Douceur is used to generate various layouts, the plurality of layouts producing a variety of program images which are used to calculate the standard deviation

and normal coefficient (paragraphs [0065-0067] of Douceur). These values are used to determine the tradeoff between generating additional layouts and the associated computational expense versus the expectation of incremental improvement of further layouts (paragraph [0074] of Douceur). Thus, Douceur does not teach "a selection program for selecting at each of a sequence of random times a different surveillance algorithm to be used by the analysis system." Douceur teaches one algorithm having random selection aspects (paragraph [0050]). Thus, the combination of Douceur and Ziegler do not render the present invention obvious.

The Examiner asserts that Douceur shows random selection (paragraph [0050]) with a predefined correlation coefficient ("rho" paragraph [0067]) and calculation of the correlation coefficient from already generated random values (paragraph [0074]). The Examiner further asserts that it would be obvious to one of ordinary skill in the art to have modified the teachings of Ziegler to add the calculations and selection method of Douceur so that comparison of the predefined rho and calculated rho would trigger and alert as taught by Ziegler if the difference exceeded a threshold. The random selection algorithms would allow for a more secure system through use of differing algorithms but with efficiency near that of just using one algorithm because only one is in use at a time. The alert would allow for a notice that the system is not operating properly or has become too predictable. If the system becomes predictable, the added security of the rotating algorithms is diminished (Examiner's Answer, page 9, paragraph 10). Appellants allege the Examiner misreads Douceur. Douceur uses one algorithm that has random selection aspects (paragraph [0050]). Further Douceur does not teach a predefined correlation coefficient. The normal correlation coefficient of Douceur is calculated based on the output layouts generated (paragraphs [0065-0067]). This correlation coefficient is calculated when the routine is terminated based on number of iterations or a specified time period (paragraph [0074]).

Since there is never a predefined rho and a calculated rho in Douceur, the Examiner has not provided a proper obviousness type rejection.

In light of the above, Appellants respectfully submit that all claims are in condition for allowance. Should the Examiner or Board require anything further to place the application in better condition for allowance, the Examiner is invited to contact Appellants' undersigned representative at the number listed below.

Respectfully submitted,

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Date: July 22, 2011

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